

# 2016 Space Weather Workshop Agenda

Omni Interlocken Hotel

## Monday, April 25

- 9:00 - 12:00 Update on the Implementation of the National Space Weather Action Plan (Fir Boardroom)  
1:00 - 5:00 Economic and Operational Impacts (Pine Boardroom)  
1:00 - 5:00 Working Meeting on the Harmonization of Solar Energetic Particle (SEP) Data Calibrations (Interlocken AB)  
3:00 - 5:00 Ionospheric Scales Discussion Group (Spruce Boardroom)  
5:00 - 7:00 Welcome Networking Session (Lobby Court)

## Tuesday, April 26

- 8:30 Conference Welcome  
Brent Gordon, NOAA/SWPC
- 8:35 [State of the Space Weather Prediction Center](#)  
Thomas Berger, NOAA/SWPC
- 8:45 [What Happened to Those Sunspots and What Can We Expect?](#)  
Doug Biesecker, NOAA/SWPC
- 9:05 [Space Weather Activity – A Year in Review](#)  
Robert Rutledge, NOAA/SWPC
- 9:25 - 9:40 Break
- 9:40 - 11:00 [White House Space Weather Activities](#)  
Chair: William Murtagh, OSTP (Office of Science and Technology Policy)
- 9:40 Update on the National Space Weather Strategy and Action Plan  
Tamara Dickinson, OSTP
- 10:00 Air Force One and Other Elements of the White House Military Office  
Tom Geyer, WHMO
- 10:20 Update on the U.S. Government Satellite Space Weather Data Public Release  
Matthew Heavner, OSTP
- 10:40 Live! From the White House Situation Room  
Jason Novick, The White House
- 11:00 - 12:00 [DSCOVR](#)  
Chair: Alysha Reinard, NOAA/SWPC
- 11:00 [NOAA Goes to L1 with DSCOVR](#)  
Doug Biesecker, NOAA/SWPC
- 11:20 [DSCOVR Magnetometer Observations](#)  
Adam Szabo, NASA/GSFC

- 11:40**      [\*\*DSCOVR Faraday Cup Solar Wind Observations\*\*](#)  
Justin Kasper, University of Michigan
- 12:00 - 2:30**      **Lunch and 12:30 SWPC Tour**
- 1:00 - 2:30**      **Poster Session: Solar and Heliosphere Applications and Research**
- 2:30 - 3:00**      [\*\*Afternoon Keynote: The Role of Academia in the Nation's Space Weather Program\*\*](#)  
Dan Baker, LASP (Laboratory of Atmospheric and Space Physics)
- 3:00 - 5:00**      [\*\*Space and Ground Based Observations / Advances\*\*](#)  
Chair: Rodney Viereck, NOAA/SWPC
- 3:00**      [\*\*Neutron Monitors – Perhaps the Original Space Weather Instrument\*\*](#)  
Jim Ryan, University of New Hampshire
- 3:20**      [\*\*GOES-VW Free-Flyer Concept for Space Weather Instruments\*\*](#)  
Frank Eparvier, LASP
- 3:40**      [\*\*QuakeFinder Induction Magnetometer Network: Hi Res Observations During Solar Storms\*\*](#)  
Tom Bleier, QuakeFinder
- 4:00**      [\*\*GOES - 40 Years of Satellite Space Environmental Monitoring\*\*](#)  
William Denig, NOAA/NCEI
- 4:20**      [\*\*Carrington – an Operational Mission to L5\*\*](#)  
Mark Gibbs, UK Met Office
- 4:40**      [\*\*An Update on the COSMIC-2 Mission\*\*](#)  
Lidia Cucurull, NOAA Global Systems Division (GSD)
- 5:00**      **End of Session**
- 5:30 - 7:30**      **10<sup>th</sup> Annual NOAA/ SWPC - Commercial Space Weather Interest Group (CSWIG)/American Commercial Space Weather Association (ACSWA) Summit Meeting - by invitation**

**Wednesday, April 27**

**8:30 - 8:40**    [Space Weather Morning Forecast Brief](#)  
Dave Marshall, NOAA/SWPC Space Weather Forecasting Office

**8:40 - 10:10**   **Commercial Space Weather Interest Group (CSWIG)/  
American Commercial Space Weather Association (ACSWA)  
Roundtable Session: “Growing the Space Weather Enterprise”**

Keynote Speaker:

**Admiral Thad Allen**, U.S. Coast Guard (ret); and Executive Vice President, Booz Allen Hamilton.

“The Benefits of Collaboration Between Commercial Industry and the Government in Confronting the Complexities of Co-producing Successful Outcomes in Achieving National Goals Associated with the Preparation and Mitigation of Natural and Human-made Disasters.”

Featured Speaker:

**Dr. Conrad C. Lautenbacher, Jr.**, Chief Executive Officer, GeoOptics, Inc.; and Member, ACSWA Executive Committee.

**“Growing the Space Weather Enterprise: Progress in Partnership.”**

**Dr. Geoff Crowley**, Chief Executive Officer, ASTRA LLC; and Member, ACSWA Executive Committee.

**“The Role of the Commercial Sector in the Nation’s Space Weather Program.”**

Panel: Keynote & Featured Speakers

Q & A

Moderator and Organizer:

**Dr. Devrie S. Intriligator**, Director, Space Plasma Laboratory, Carmel Research Center, Inc.; and Member, ACSWA Executive Committee.

**10:10 - 10:30**   **Break**

**10:30 - 12:00**   **Panel: Agency Activities**  
Chair: Thomas Berger, NOAA/SWPC

**10:30**    [NASA Heliophysics Division - The Science of Space Weather](#)  
Steven Clarke, NASA/Heliophysics

**10:45**    [Space Weather Research at the National Science Foundation](#)  
Therese Moretto Jorgensen, NSF

**11:00**    [Department of Defense Space Weather](#)  
Lt Col Mark Allen, AFW (Air Force Weather Agency)

**11:15**    [National Weather Service](#)  
Bill Lapenta, NOAA/NWS

**11:30**    **NESDIS**

Karen St. Germain, NOAA/NESDIS

- 11:45**     [\*\*The USGS Geomagnetism Program\*\*](#)  
Jill McCarthy, USGS
- 12:00 - 12:10**     [\*\*Benchmarking Progress in Space Weather: Reprise of the 2001 AGU Monograph on Space Weather - Space Weather Journal Special Collection Announcement\*\*](#)  
Delores Knipp, Space Weather Journal
- 12:10 - 1:30**     **Lunch**
- 1:30 - 3:10**     [\*\*Space Weather Impacts: Electric Power Grid\*\*](#)  
Chair: Bill Murtagh, OSTP
- 1:30**     **An Ensemble Approach to Communicating Extreme Space Weather Event Probability**  
Seth Jonas, STPI (Science and Technology Policy Institute)
- 1:50**     [\*\*Adventures in Geoelectric Field Calculations and Validation\*\*](#)  
Chris Balch, NOAA/SWPC
- 2:10**     [\*\*Space Weather Power System Impacts and PJM Response\*\*](#)  
Frank Koza, PJM (Pennsylvania-New Jersey-Maryland Interconnection)
- 2:30**     [\*\*GIC modeling: From the Solar Wind to Power System Impacts\*\*](#)  
Jennifer Gannon, Computational Physics, Inc.
- 2:50**     [\*\*Create a 21st Century US Electricity System\*\*](#)  
Sandy MacDonald, Spire
- 3:10 - 5:00**     **Poster Session - General Space Weather Services & Magnetosphere Applications and Research (2 Groupings)**
- 5:00**     **End of Session**
- 6:00 - 9:00**     **Banquet Dinner at Omni Interlocken Ballroom**

**Special Guest Speaker:**

**Dr. Tony Phillips, Spaceweather.com**

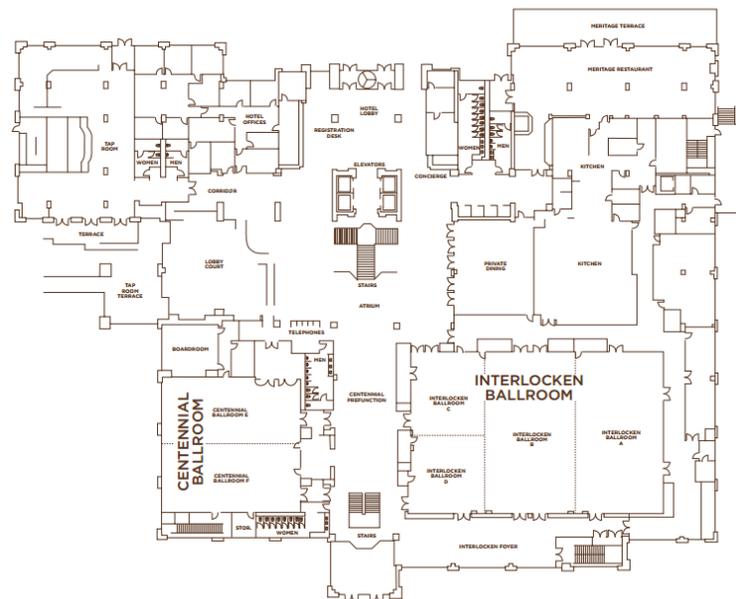
**“Mutant Fungi in the Stratosphere and other Space Weather Surprises”**

**Thursday, April 28**

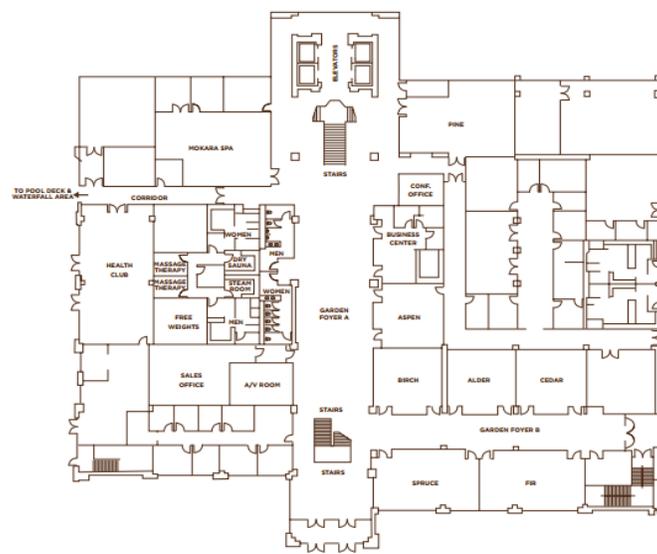
- 8:30 - 8:40**     [Space Weather Morning Forecast Brief](#)  
Shawn Dahl, NOAA/SWPC Space Weather Forecasting Office
- 8:40 - 10:00**     **Space Weather and the Arctic: Challenges and Opportunities in the New Frontier**  
Chair: Rodney Viereck, NOAA/SWPC
- 8:40**     [Ionospheric Mapping Using a Ground-Based GPS Receiver Network in Alaska](#)  
Geoff Crowley, ASTRA (Atmospheric and Space Technology Research Associates)
- 9:00**     [Space Weather Impacts in Alaska](#)  
Carven Scott, NOAA/NWS
- 9:20**     [Space Weather Effects with the Flip of a Switch](#)  
Robert McCoy, University of Fairbanks
- 9:40**     **The Arctic: NORAD and USNORTHCOM Perspective**  
Lt Col Jason Julian / Charlotte Browning, USNORTHCOM
- 10:00 - 10:20**     **Break**
- 10:20 - 12:00**     **Improving SWx Forecasting I: Modeling and Data Assimilation**  
Chair: Doug Biescker, NOAA/SWPC
- 10:20**     [Living with a Star](#)  
Elsayed Talaat, NASA/Heliophysics
- 10:40**     [Atmosphere and Surface Impacts by Auroral Energetic Electron Precipitation \(EEP\)](#)  
Ethan Peck, Columbia University
- 11:00**     [Space Weather Modeling Framework \(SWMF\) University of Michigan Perspectives](#)  
Dan Welling, University of Michigan
- 11:20**     [Forecasting Solar Indices with ADAPT](#)  
Carl Henney, AFRL (Air Force Research Laboratory)
- 11:40**     [Community Coordinated Assessment and Rapid Implementation of Space Weather Analysis and Forecasting Capabilities](#)  
Masha Kuznetsova, NASA/CCMC
- 12:00 - 2:30**     **Lunch and 12:30 SWPC Tour**
- 1:00 - 2:30**     **Poster Session – Ionosphere / Thermosphere Research and Applications**
- 2:30 - 3:00**     [Afternoon Keynote: How Space Weather got to Boulder in the Post-WWII Years](#)  
Joe Bassi, Embry Riddle University
- 3:00 - 3:20**     [A Report from the Recent Workshops on Economic and Operational Impacts](#)  
Nicola Fox, Johns Hopkins University/Applied Physics Laboratory
- 3:20 - 5:00**     **International Coordination of Space Weather Activities**  
Chair: Terry Onsager, NOAA/SWPC

- 3:20 [Project for Solar-Terrestrial Environment Prediction \(PSTEP\) in Japan](#)  
Kanya Kusano, Institute for Space-Earth Environmental Research (Nagoya University)
- 3:40 [ESA SSA Federated Approach for Space Weather Services](#)  
Juha-Pekka Luntama, ESA (European Space Agency)
- 4:00 [Space Weather Services in Korea](#)  
Dong-Hun Lee, Korean Space Weather Center
- 4:20 [Mexican Space Weather Service \(SCIESMEX\)](#)  
Juan Americo Gonzalez Esparza, Mexican Space Weather Service
- 4:40 [The Australian Bureau of Meteorology: Space Weather Services](#)  
Phillip Maher, Bureau of Meteorology
- 5:00 **End of Session**

*Interlocken First Floor*



*Interlocken Garden Level*



**Friday, April 29**

- 8:30 - 8:40**     [Space Weather Morning Forecast Brief](#)  
Rob Steenburgh, NOAA/ SWPC Space Weather Forecasting Office
- 8:40 - 10:00**   [Improving SWx Forecasting II: Modeling and Data Assimilation](#)  
Chair: Howard Singer, NOAA/SWPC
- 8:40**            [Between Earth and Space: Ensemble Modeling and Data Assimilation of the Space-Atmosphere Interaction Region](#)  
Tomoko Matsuo, NOAA/SWPC
- 9:00**            [An Operational Geospace Model at the National Weather Service: Latest Update](#)  
George Millward, NOAA/SWPC
- 9:20**            [Overview of NASA MSFC and UAH Space Weather Modeling and Data Efforts](#)  
Linda Neergaard Parker, Jacobs/MSFC
- 9:40**            [Van Allen Probes and Space Weather](#)  
Mona Kessel, NASA HQ
- 10:00 - 10:20**   **Break**
- 10:20 - 12:00**   [Space Weather Impacts: Radiation Modeling and Observations](#)  
Chair: Terry Onsager, NOAA/SWPC
- 10:20**           [45th Weather Squadron Space Weather Support to Launch](#)  
Kathy Winters, USAF
- 10:40**           [Predicting Solar Energetic Particle \(SEP\) Events Using SEPMOD with ENLIL](#)  
Janet Luhman, UC Berkeley
- 11:00**           [The Radiation Dosimetry Experiment \(RaD-X\) Flight Mission: Observations for Improving the Prediction of Cosmic Radiation Health Risk at Aviation Altitudes](#)  
Christopher Mertens, NASA
- 11:20**           **Comparison of Cosmic Radiation Detectors in the Radiation Field at Aviation Altitudes**  
Matthias Meier, DLR
- 11:40**           [Space Weather at Mars: Energetic Particle Measurements on the Surface of Mars with MSL RAD](#)  
Don Hassler, SwRI (Southwest Research Institute)
- 12:00**           [Closing Remarks](#)  
Thomas Berger, NOAA/SWPC
- 12:10**           **End of Conference**